

ABSTRACT OF THE DISCLOSURE

The present invention includes a method of growing a doped glass films suitable for optical applications on a substrate comprising the steps of conveying an organometallic compound of the formula $(R_3SiO)_jM(OR')_k$ to the substrate and reacting the silica forming substance and the organometallic compound to form the optical layer on the substrate, where M is a metal; R is methyl, ethyl or propyl; R' is methyl, ethyl, n-propyl, n-butyl, isobutyl or s-butyl; j is 1, 2, 3 or 4; and $k=4-j$. The present invention also includes planar optical devices made by the above method. Additionally, the present invention includes an optical fiber made by the above method.